

Europäisches Patentamt

European Patent Office

Offic uropé n des br vets

11 Publication number:



0 165 933 B1

(P)

## EUROPEAN PATENT SPECIFICATION published in accordance with Art. 158(3) EPC

(9) Date of publication of patent specification: 10.04.91 (9) Int. Cl.5: A61K 33/14, //A61K33/00, A61K31/70,A61K31/72

2) Application number: 84903614.0

2 Date of filing: 28.09.84

(88) International application number: PCT/AU84/00188

International publication number:
 WO 85/01657 (25.04.85 85/10)

The file contains technical information submitted after the application was filed and not included in this specification

- TREATMENT OF ANIMAL DIARRHOEA.
- 3 Priority: 07.10.83 AU 1747/83
- Date of publication of application:02.01.86 Bulletin 86/01
- Publication of the grant of the patent: 10.04.91 Bulletin 91/15
- Designated Contracting States:
   AT BE CH DE FR GB LI LU NL SE
- 56 References cited:

EP-A-02 292 2 AU-A-88 704 /82 GB-A- 1 541 461 US-A- 3 898 328

US-A- 4 164 568

US-A- 4 322 407

EP-A-05 905 7 AU-B-15 217 /56 JP-A- 5 839 625

US-A- 4 042 864 US-A- 4 308 255

UNLISTED DRUGS, vol. 34, no. 2, February

1982, pages 26-27; Chatham N.J., US

PHARMACEUTISCHE ZEITUNG, 128, 22 (1983), 1169-1174

GUT 1971; 12; 184-193

- Proprietor: THE STATE OF VICTORIA Treasury Place Melbourne Victoria 3000(AU)
- 22 Inventor: JERRET, Ian Vincent

Sarsfield Via Baimsdale, VIC 3883(AU)

Representative: Fry, Alan Valentine FRY HEATH & CO. St. Georges House 6 Yattendon Road Horley Surrey RH6 7BS(GB)

0 165 93

 $\mathbf{\omega}$ 

Note: Within nine months from the publication of the mention of the grant of the European patent, any person may give notice to the European Patent Office of opposition to the European patent granted. Notice of opposition shall be filed in a written reasoned statement. It shall not be deemed to have been filed until the opposition fee has been paid (Art. 99(1) European patent convention).

5	Glucose (normal 2.8 - 7.5mM)	Blood urea(m)	Blood pH (n rm.7.40)	N .moribund calves		Calf Scour Tri	Table 2
10	·			Ves		lals 2	
_	1.5	28.4	7.15	1/12	XT TX	and 3 -	
20	7.3	25.8	6.92	5/12	Milk + Antimicr.	Trials 2 and 3 - Moribund calves	
25	0.5	16.6	7.19	2/11	(trolyte) (Wytrate)	alves	
30	0.3	19.4	6.82	2/11	Nutr/Elect (Vytrate)		
35	•	•	•	0/12	Soln.		
<b>.</b>	+hypoglycaemia	tdehydration	+acidosis				

## 50 Claims

45

55

1. A veterinary composition suitable for the treatment of energy depletion, dehydration and electrolyte imbalance in diarrhoeic neonatal animals, which comprises glucose, one or more sodium salts and on or more chlorid salts, the composition being characterised in that glucose is present in the composition in an amount sufficient to produce a concentration level of from 200 mM to 250 mM/L when in an aqueous solution, sodium salt is present in the composition in an amount sufficient to produce a sodium ion concentration level of from 60 mM to 120 mM/L when in an aqueous solution, and chlorid salt is present in the composition in an amount sufficient to produce a chloride ion concentration level

## EP 0 165 933 B1

of 50 mM to 90 mM/1 when in an aqueous solution.

- 2. A veterinary composition as claimed in Claim 1 characterised in that it als includes on or mor bicarbonate salts in an amount sufficient to produce a bicarbonate ion concentration lev I of 20 mM to 40 mW/1 when in an aqueous solution.
- 3. A veterinary composition as claimed in Claim 1 or Claim 2 characterised in that it also includes one or more citrate salts in an amount sufficient to produce a citrate ion concentration level of 1 mM to 35 mM/L when in an aqueous solution.
- 4. A veterinary composition as claimed in Claim 1 characterised in that is consists of 88% w/w to 94% w/w of glucose monohydrate based on the total weight of the veterinary composition, and 6% w/w to 12% w/w of sodium chloride based on the total weight of the veterinary composition.
- 5. A veterinary composition as claimed in Claim 2 characterised in that it consists of 83% w/w to 92% w/w of glucose anhidydrous based on the total weight of the veterinary composition, 5% w/w to 11% w/w of sodium chloride based on the total weight of the veterinary composition, and 3% to 8% w/w of sodium bicarbonate based on the total weight of the veterinary composition.
- 20 6. A veterinary composition as claimed in Claim 1 characterised in that it consists of 87% w/w to 93% w/w of dextrose (anhydrous) and 7% w/w to 13% w/w of sodium chloride based on the total weight of the veterinary composition.
- 7. A veterinary composition as claimed in Claim 2 characterised in that it consists of 81% w/w to 91% w/w of dextrose (anhydrous) based on the total weight of the veterinary composition, 5% w/w to 12% w/w of sodium chloride based on the total weight of the veterinary composition, and 3% w/w to 8% w/w of sodium bicarbonate based on the total weight of the veterinary composition.
- 8. A veterinary solution consisting of a composition as claimed in any one of Claims 1 to 7 in the form of an aqueous solution.
  - 9. A veterinary aqueous solution as claimed in claim 8 comprising glucose, sodium (Na+) ions, and chloride (Cl-) ions, the composition being characterised in that the glucose concentration is in the range of 200 mM to 250 mM/t the sodium ion concentration is in the range 60 mM to 120 mM/t and the chloride ion concentration is in the range 50 mM to 90 mM/t.
  - 10. A veterinary aqueous solution as claimed in Claim 9 characterised in that the aqueous solution composition further comprises bicarbonate (HCO<sub>3</sub>-) ions at a concentration in the range of 20 mM to 40 mM/t.
  - 11. A veterinary aqueous solution composition as claimed in Claim 9 or Claim 10 further characterised by citrate ions in the range of 1 mM to 35 mM/1.

## 45 Revendications

5

10

35

50

55

- 1. Un composé vétérinaire convenant au traitement de la déplétion, de la déshydratation et du déséquilibre en électrolytes chez les animaux nouveaux-nés souffrant de diarrhéee, et composé étant caractérisé en ce un ou plusieurs sels de sodium et un ou plusieurs sels de chlore, le composé étant caractérisé en ce que que le glucose est présent dans le composé en quantité suffisante pour donner un niveau d concentration de 200 mM à 250 mM/l en solution aqueuse, le sel de sodium est présent dans l composé en quantité suffisante pour donner un niveau de concentration en ions sodium de 60 mM à 120 mM/l en solution aqueuse et un sel de chlore est présent dans le composé en quantité suffisante pour donner un niveau de concentration d ions chlorure de 50 mM à 90 mM/l en solution aqueuse.
- 2. Un composé vétérinaire suivant la revendication 1 caractérisé en ce qu'il comporte aussi un ou plusieurs sels d bicarbonat en quantité suffisante pour donner un niveau d concentration d'ions bicarbonate de 20 mM à 40 mM/l en solution aqueuse.